0.00

Memo

QC

Ouality Control

											DQA:	Date	·
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORI	MANCE / UP	DATE			
											QA Closed:	Date	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N						Rework Scrap			Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality
NCR 1	No.					Use-as-is Work Order Update		Thern	noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other
Root					Descr	ription of work order update	Ti	nitial	Act	ion	Sign &	1	
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	QC Inspector
oc/Data													
quip/Tooling]	l								
perator											,		
/laterial													
etup													
)ther 💂													
rocess" •							1						
upplier 📜	ħ												
raining													
Inapproved		L			<u> </u>								·
							FAUL	T CATE	GORY				
Landi	ng (i				General		1			- 1	_	
		Bending			<u> </u>	Bend		Grain			Ovalized		Pressure/Forced
		Centre No		ntric to	o/s	BOM/Route	<u> </u>	Hardwa			Over/Under	 	Temperature/Cure
		Cracks	•		L	Broken/Damaged	_	1	on Incomplete	<u> </u>	Part Incorre	<u> </u>	Weld
		Crushed/0	Crimped.		_	Burrs	L	1	ions Incomplete/L	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	<u> </u>	Cuffs			L	Contamination	\perp	Mainte		<u> </u>	Part Moved		
		Heat Trea			L	Countersink	_	Mislabe	eled		Positioned V	_	,
		Inspection	-	Tube	L	Cut Too Short	_	Misread	d		Power Loss/	Surge	Other
		Ripples in				Drill Holes	<u> </u>	Offset					
		Torque W	aves in E	xtrusio	n L	Drawing		Out of (Calibration				
		Turning So	equence			Finish		Out of 9	Sequence				

Outside Dimensions

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

93364

Page 2

November-19-12	9:00:11 AM	1		9.7	.)()4	+ 						
Item ID: Revision ID:	D3884-2			Accept	*1	1900	040	100)* s	etup Star	*N	S1*
Item Name:	Saddle, Inboar	d RH								Stop	*N	S2*
Start Date: Required Date: Reference:	11/20/12 12/07/12	Start Qty: 10.00 Req'd Qty: 10.00	*10* *10*			Cust Item II Customer:	D:					
Approvals:	Process Pla	n:	Date:	Tooling:		Da	ıte:	-	R	tun Star	1/1	R1*
			Date:	SPC (Y/N):		Da	ite:	m /		Stop	` *N	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours		Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
*120 *120 *120 QC Quality Control		QC8- Inspect parts - secon	d check	0.00	b =	13/01/1	6		10	4		0AS 08
Quanty Control												
130		Chemical Conversion Coa	t per QSI005 4.1	0.00							•	
130 HandFinish Hand Finishing		Memo		0.00					10	74	\$ 13.	2-17
140 *14 0*		White Gloss(Ref:43.51)	085005 4.3-Alum	0.00					/ 0		NJ A	
Powder Coating		Memo START TIME OVEN TEME		0.00					-10	- P	[I-13]	1-17
		FINISH TIME	240	,								

Equip/Tooling Operator Material Setup Setup Stock Pulled Grain Over/Under tolerance Temperature/Cure Crushed/Crimped, Burrs Broken/Damaged Inspection Strip in Tube Cut Too Short Misread Prower Other Contents of Countersink Mislabeled Prower Loss/Surge Other											DQA:	Date	2:
DISPOSITION Rework Scrap Use-as-is Work Order Update Use-as-is Vork Order Update Vorification Other Chief Eng Description Date Verification Other Other Chief Eng Description Date Verification Other	NCR: Y	res / N	lo			WORK ORDER NON-C	CON	NFORM	MANCE / UP	DATE	•		
Part No.						▼'					QA Closed:	Date	2:
Part No.	Work Orde	or.				DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Date Step Qty Or Non-conformance Chief Eng Description Date Verification QC Inspector	Part N	No				Scrap Use-as-is		f Therm	Machining noforming	Small Fab Finishing	ł	d. Eng. Coor. e/Packaging	Quality
Doc/Data Equip/Tooling Operator Material Setup Contamination Content Con	Root				Descri	ption of work order update	1	nitial	Act	tion	Sign &		
Equip/Tooling Operator Material Setup Setup Stock Pulled Grain Overloads Operator Supplier Operator Stock Pulled Operator Stock Pull	Cause	Da	e Step	Qty	(or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Cuffs Contamination Heat Treat Inspection Strip in Tube General Grain Ovalized Over/Under tolerance Hardware Over/Under tolerance Temperature/Cure Hardware Inspection Incomplete Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Part Lost/Missing Wrong Stock Pulled Positioned Wrong Power Loss/Surge Other	Care 1	f · Jane ·											
Bending Bend Grain Ovalized Pressure/Forced Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Inspection Incomplete Part Incorrect Weld Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Contamination Maintenance Part Moved Heat Treat Countersink Mislabeled Positioned Wrong Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other				······································			AUL	T CATE	GORY				
I I Dinnlos in Band I I Drill Halas I 10ffsat	Landii	Bend Centr Crack Crush Cuffs Heat Inspe	e Not Conce s ed/Crimped Freat ction Strip in	i.	o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Hardwa Inspecti Instruct Mainte Mislabe Misreac	on Incomplete ions Incomplete/I nance led	Unclear	Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V	ct ssing Vrong	Temperature/Cure Weld Wrong Stock Pulled
Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Calibration		—		Extrusio	<u>,</u>	╡	Н		alibration				

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*933	364*							Page 3
tem ID: Revision ID: tem Name:	D3884-2 Saddle, Inboard	d RH		Accept	*N900	040	100) *	Setup	Start Stop	14	S1* S2*
tart Date: Required Date: Reference:	11/20/12 12/07/12	Start Qty: 10.00 Req'd Qty: 10.00	*10* *10*		Cust Item I: Customer:	D:						
Approvals:		n:				nte:]		Start Stop		R1* R2*
Sequence ID/ Work Center II 50 *150* QC Quality Control	D	Operation Description QC3- Inspect Part Finish Memo		Set Up/ Run Hours 0.00	Tool ID	Tool#	Code	Accept Qty	Qty	N		Insp. Stamp
160 Packaging		Identify as per dwg & Sto	ock Location: TY	0.00				/ 0))	3-01-L
170 *17		QC21- Final Inspection -	Work Order Release	0.00					13	3/0	1/2	2 1
											01 (3	01/

											DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-C	100	VFORM	MANCE / UPDAT	ΓΕ	•		
											QA Closed:	Date	•
Work Ord	er.					DISPOSITION				AGAINST DEF	PARTMENT	PROCESS	
Part NCR	No.					Rework Scrap Use-as-is Work Order Update		Therm	Machining S noforming	Finishing omposite		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description	on	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator													
Material	Ш												
Setup													
Other ,												-	
Process													
Supplier													
Training							ļ						
Unapproved													
						F.	AUL	T CATE	GORY				
Landi	ng (Gear			_	General		•			ı		 ,
		Bending				Bend		Grain			Ovalized	_	Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	$\overline{}$	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	-	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/Uncle	ear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	nt			Countersink		Mislabe	led		Positioned V	Vrong	
ł		Inspection	n Strin in	Tube		Cut Too Short		Microso	ł		Power Local	Surgo	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

November-19-12 9:00:11 AM

Work Order ID:

93364

Parent Item:

D3884-2

Parent Item Name:

Saddle, Inboard RH

Start Date: 11/20/12

Required Date: 12/07/12

Page 1

Start Qty: 10.00

Required Qty: 10.00

Comments.

IPP RevA: New issue DD verified by:EC

Comments:	IPP RevA: New iss	ue DD vermed by:	EC.										
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-017		Manufactured	No				Each	12.0000		10			
Saddle Billet									C. S. C.				
				Location		Loc Qty	<u>Lo</u>	c Code					
				MAT040		12							
				919	13	12							
				43	314				10		TS	E 13	.01.12

NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPI	DATE				
				·- ·						-	QA Closed:	Dat	te:	
Work Ord	er:				. •	DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
Part NCR	No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier		gineering Quality Other
Root					Descri	ption of work order update		Initial	Act	ion	Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descr	iption	Date	Verificatio	<u>1 C</u>	QC Inspector
Doc/Data						:								
Equip/Tooling									ĺ					
Operator														
Material									İ				1	
Setup														
Other														
Process														
Supplier							1		·					
Training													Ì	
Unapproved													l	
						F	AUL	T CATE	GORY					
Landi	ng (Gear				General		_			_			
		Bending				Bend		Grain			Ovalized		Press	sure/Forced
		Centre No	ot Concer	ntric to C	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Tem	perature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld	ł
		Crushed/	Crimped,			Burrs		Instruct	ions Incomplete/U	Inclear	Part Lost/Mi	ssing	Wro	ng Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved	'		
		Heat Trea	it			Countersink		Mislabe	led		Positioned V	Vrong		
		Inspection	n Strip in	Tube		Cut Too Short		Misread	l		Power Loss/	Surge	Othe	er .
		Ripples in	Bend			Drill Holes		Offset			4	-		
		Torque W	aves in F	xtrusion		Drawing		Out of C	alibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	93364
Description: Saddle, Inboard, RH	Part Number:	D3884-2
Inspection Dwg: D3884 Rev. B		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing and record below:

				Re	corded Acti	ual Dimensi	ons		
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	Ву	Date
Α	2.870	2.880		7.875	7.875	7-875	7.875		
В	1.433	1.443		1.438	1.438	1-438	1-478		
С	0.638	0.658		. 645	.649				
D	3.895	3.905		3.900	3,000	3.900	3.900		
E	0.257	0.262		.257	257	. 257	-257		
F	0.605	0.625		.615	-6:7	6.7	1617		
G	1.120	1.130		1.125	1-1-25	1,525	1-125		_
Η	2.245	2.255		7.250	2.250	7-240	2-250		
	2.000	2.020		7.000	7.012	7-010	7-010		-
J	0.140	0.175		.153	.152	.152	.152		
K	1.265	1.285		2.171	1.267	1.768	1.268		
L	0.115	0.135		.175	.177	.127	.127		
M	0.240	0.260		. 250	.752	.252	1252		
Ν	0.110	0.140		.150	.150	.150	.150		
0	0.240	0.260		. 255	. 757	.252	- 252		
Р	2.826	2.886		2.856	7.856	2-856	7-856		
Q	0.178	0.198		.188	, ১૬૪	• १३४	.188		10
R	0.140	0.165		. 154	155	155	1155		
S	0.720	0.780		.754	. 754	.75~	. 754	·450	
Т	1.220	1.280		1.760	1. 60	1.260	1.760		
U	1.245	1.255		1.250	1-250	1.256	1-250		
V	5.990	6.010		6.001	6-62	6.002	6.002	* *	
W	2.495	2.505		7.500	7500	The	7.500		
X	0.490	0.510		.501	.501	·501	.501		
Y	0.020	0.040		.030	.070	.030	.630		
Z	0.313	0.318		.313	・7、3	.313	.713		
AA	0.760	0.765		· 760	. 760	· 76c	-760		
AB	0.215	0.220		.718	.718	. 745	.7.8		
AC	0.316	0.321		-316	-316	.3.6	.716		
AD	1.745	1.755		1.750	1-78c	1.750	1.750		
AE	0.990	1.010		1.004	1-008	1.000	. 498		
AF									
	Acc	ept/Rejec	et						

Me	asured by:	36	Audited by	Α	OB.
	Date:	13.01.14	Date: 3	01/16	9-89
Rev	Date	Change		Revised-by	Approved
Α	09.10.22	New Issue	*	KJ KL	
		· · · · · · · · · · · · · · · · · · ·		1	1

DART AEROSPACE LTD	Work Order:	93364
Description: Saddle, Inboard, RH	Part Number:	D3884-2
Inspection Dwg: D3884 Rev. B		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing and record below:

				Red	corded Actu	ıal Dimensi	ons		
Dim	Min	Max	Go/No Go Gauge	45	7 6	3-4	4 8	Ву	Date
Α	2.870	2.880		2.875	7.875	7.875	2.875		
В	1.433	1.443		1-438	7.438	1.438	1.438		
С	0.638	0.658		.649	. 649	. 6 49	-649		
D	3.895	3.905		3.900	3.000	3.900	3.900		
E	0.257	0.262		. 257	. 257	.757	1757		
F	0.605	0.625		.617	.617	. 6.7	. 617		
G	1.120	1.130		1.175	1.125	1.125	1.125		
Н	2.245	2.255		7.750	7.750	7.750	7.750		
ı	2.000	2.020	,	7.010	7.010	7.010	2.010		
J	0.140	0.175		.154	.154	.154	.154		
K	1.265	1.285		1.770	1.270	1.270	1.770		
L	0.115	0.135		.126	1176	126	.126		
М	0.240	0.260		.751	٠ ٢٥ ١	125.	.251		
N	0.110	0.140		140	-140	.140	.140		
0	0.240	0.260		. 753	. 253	.753	.753		
Р	2.826	2.886		7.856	7-856	7.856	7-856		*·. ·
Q	0.178	0.198		.188	188	. 188	. 188		` <i>0</i> :
R	0.140	0.165		.1 5 प	.154	154	-154		
S	0.720	0.780		.760	. 760	-760	.760		
T	1.220	1.280		1.760	1.760	1.260	1.260		
U	1.245	1.255		1.250	1.250	1.750	1.750		
V	5.990	6.010		6.001	6.001	6.001	6.001		
W	2.495	2.505		7.500	2500	2.500	7.500		
Χ	0.490	0.510		. પલવ	- 499	.500	. 499		
Υ	0.020	0.040		-630	. 530	.030	.630		
Z	0.313	0.318		.313	.313	.313	.313		
AA	0.760	0.765		.760	- 760	.760	.760		
AB	0.215	0.220		.718	- 718	. 718	. 718		
AC	0.316	0.321		.316	.316	.316	.316		
AD	1.745	1.755		1.750	1.750	1.750	1.750		
AE	0.990	1.010		1.001	1.002	1-007	1.002		
AF				-					
	Acc	ept/Rejec	t						

Measured by: \(3 G\)	Audited by 5.9	0AS
Date: 13.01.14	Date: (3/01/14	, S-83
Poy Data Change	· \	isad by Approved

DART AEROSPACE LTD	Work Order:	93364
Description: Saddle, Inboard, RH	Part Number:	D3884-2
Inspection Dwg: D3884 Rev. B		Page 1 of 1

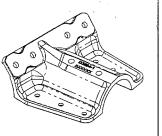
Inspect dimensions highlighted on inspection sheet drawing and record below:

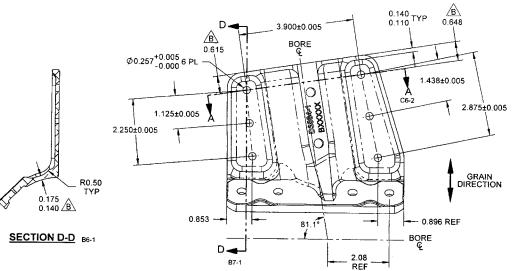
			Recorded Actual Dimensions						
Dim	Min	Max	Go/No Go Gauge	4-9	2-10	3	4	Ву	Date
A	2.870	2.880		7-875	2475				
В	1.433	1.443		1.438	1.438				
С	0.638	0.658							
D	3.895	3.905		3.900	3.900				
Е	0.257	0.262		. 257	- 257				
F	0.605	0.625							
G	1.120	1.130		1.125	1.175				
Н	2.245	2.255		7.750	7.750				
	2.000	2.020		7.010	7.010				-
J	0.140	0.175							
K	1.265	1.285		1.270	1.770				
L	0.115	0.135			1				
М	0.240	0.260		1754	. 254				
N	0.110	0.140			•				
0	0.240	0.260		. 754	. 254				
Р	2.826	2.886		7.856	7.856				
Q	0.178	0.198		.184	.184				10
R	0.140	0.165							
S	0.720	0.780		· 760	· 160				
T	1.220	1.280	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				, .		
U	1.245	1.255		1.750	1.750				
V	5.990	6.010		6.001	6.601				
W	2.495	2.505		7-500	7.500				
Х	0.490	0.510		.501	.500		-		
Υ	0.020	0.040		.070	.030				
Z	0.313	0.318		.313	.3.3			1	
AA	0.760	0.765		.760	- 760				
AB	0.215	0.220		. 718	-218				
AC	0.316	0.321		.316	. 316				
AD	1.745	1.755		1.75c	1.450				
AE	0.990	1.010		1.002	1.007				
AF									
	Acc	ept/Rejec	et				-		

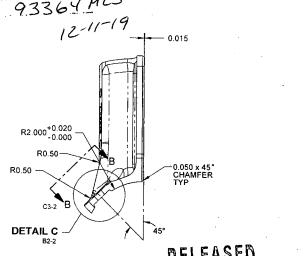
Revised by	Approved
KJ #1	
-	

Measured by:

SH # COPY Bur PATT ENCINE RIGHT UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK UNDER MLJ







<u>D3884-1 SADDLE, INBOARD LH (SHOWN)</u> D3884-2 SADDLE, INBOARD RH (OPPOSITE)

NOTES:
1) MATERIAL: 7075-T7351 ALUMINUM PER QQ-A-250/12 OR AMS-QQ-A-250/12 (REF DART SPEC. D6101-017)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.05 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO
MAX. DEPTH OF 0.010 WITH A MIN. TOOL RAD OF R0.010
7) WEIGHT: 0.71 lbs

7) WEIGHT: 0.71 lbs

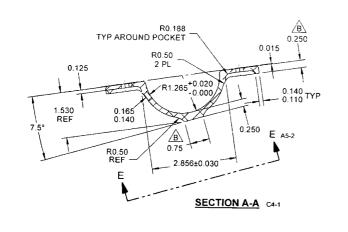
D6101.017 WAS D6102.017. ZN A6-1; ADD NOTE. ZN C4-2; ADD R0.031. ZN C2-2; INCREASED TOLERANCE 0.175 WAS 0.165.ZN B7-1; ADD 0.615. ZN C6-1. ADD 0.648. ZN C6-1; ADD 0.250. ZN D6-2; ADD 0.060. ZN C2-2; 0.75 WAS 0.65. ZN D7-2 RF 09.06.30 NEW ISSUE RF 09.03.30 REV. DESCRIPTION BY DATE

DESIGN	KF	J DART AEROSPACE U	ISA INC. I
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	PH /	DRAWING NO.	REV. B
MFG. APPR.	111	D3884	SHEET 1 OF 2
APPROVED	(Adu)	TITLE	SCALE
DE APPR.	1	INBOARD SADDLE	NTS

09.06.30

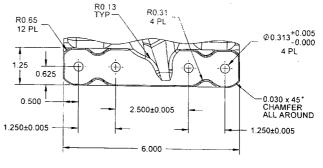
D

С



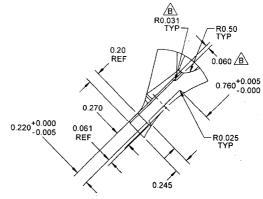
D

С



-R0.50 TYP AROUND ALL RIDGES Ø0.316^{+0.005}_{-0.000} 2 PL BORE E 1.000 0 1.750±0.005 0 0 <u>6</u> 3.38

VIEW B-B B3-1 (ROTATED FOR CLARITY)



DETAIL C B3-1

DESIGN	RF	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	RF		
CHECKED	PH 1	DRAWING NO.	REV. B
MFG. APPR.	1216	D3884	SHEET 2 OF 2
APPROVED	WAR	TITLE	SCALE
DE APPR.	4	INBOARD SADDLE	NTS
DATE 09.0	06.30	COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THE DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESE CONTROL THAT IT IS NOT TO BE USED FOR AN PURPOSE OR COMPANY ACTAINED TO NOT ORREPRESON WITHOUT	

VIEW E-E C6-2

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